ATTACHMENT “B”-STATEMENT OF BASIS

Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

DRAFT PERMIT NO. F-01-039

ARCH ENVIRONMENTAL EQUIPMENT, INC.

5929 BENTON ROAD, PDUCAH KENTUC
OCTOBER 24, 2001
FROUGH SHERWANI, REVIEWER
PLANT I.D. # 021-145-00088
APPLICATION LOG # 54013

SOURCE DESCRIPTION:

The Arch Environmental Equipment, Inc. USA, Inc. is located at Paducah Kentucky, manufactures conveyor components and dust control equipment.

The source has one spray booth, two-urethane shop, five welding stations, one wood working area and two natural gas curing ovens.

Source has applied for conditional major permit.

Emission Point **01** **Spray Booth**

MP1 DeVilbiss model 2000 spray gun

This point is for spray gun. The "PTE" is based on 6.57 gallons per hour. There are four guns in booth, but only one gun used at one time. The assumed transfer efficiency of the system is 60%. Booth has fabric filter to control particulate matter. The control efficiency of the filter is 90%. The "PTE" is based on 8760 hrs per year.

MP2 **Clean-Up**

This point is for clean-Up. The "PTE" is based on 0.175 gallons per hour. The "PTE" is based on 8760 hrs per year.

Emission Point **02** **Urethane Shop**

MP1 **Castable Urethane Molding**

This point is for Urethane application. Vibrathane 8020 or equivalent and Vibrathane 8585 or equivalent is used for this operation. The "PTE" is based on 35.30 lbs. per hour for Vibrathane 8020 or equivalent and 2.67 lbs. per hour for Vibrathane 88585 or equivalent. The "PTE" is based on 8760 hrs per year.

MP2 **Catalyst**

This point is for catalyst use. 1,4 Butanediol or equivalent is used for this operation. The "PTE" is based on 2.89 lbs. per hour. The "PTE" is based on 8760 hrs per year.

Emission Point **03** **Adhesive Application**

MP1 **Elastomer Application**

This point is for adhesive application. Elastomer or equivalent is used for this operation. Brush is used for coating. The "PTE" is based on 0.54 lbs. per hour. Adhesive is mixed with thinner. The adhesive is 26% of thinner. The "PTE" is based on 8760 hrs per year.

Emission Point **04** **Curing Oven # 1**

This point is for curing oven. Natural gas is used as fuel. The rated capacity of the oven is 1.5 mmBTU per hr each. This is an insignificant activity.

Emission Point **05** **Curing Oven # 2**

This point is for curing oven. Natural gas is used as fuel. The rated capacity of the oven is 0.15 mmBTU per hr each. This is an insignificant activity.

Emission Point **06** **Welding Area # 1**

This point is for MIG welding. The consumption of electrode (ER70S-6 or equivalent) is 2.05 lb. per hr per machine. The welding operation has an electrostatic precipitator to control particulate matter with the control efficiency of 90 %. This is an insignificant activity.

Emission Point 07 Welding Area # 2

This point is for MIG welding. The consumption of electrode (ER70S-6 or equivalent) is 2.05 lb. per hr per machine. The welding operation has an electrostatic precipitator to control particulate matter with the control efficiency of 90 %. This is an insignificant activity.

Emission Point 08 Welding Area # 3

This point is for MIG welding. The consumption of electrode (ER70S-6 or equivalent) is 2.05 lb. per hr per machine. The welding operation has an electrostatic precipitator to control particulate matter with the control efficiency of 90 %. This is an insignificant activity

Emission Point 09 Welding Area # 4

This point is for MIG welding. The consumption of electrode (ER70S-6 or equivalent) is 2.05 lb. per hr per machine. The welding operation has an electrostatic precipitator to control particulate matter with the control efficiency of 90 %. This is an insignificant activity

Emission Point 10 Welding Area # 5

This point is for MIG welding. The consumption of electrode (ER70S-6 or equivalent) is 2.05 lb. per hr per machine. The welding operation has an electrostatic precipitator to control particulate matter with the control efficiency of 90 %. This is an insignificant activity

Emission Point 11 Wood Working

This point is for miscellaneous wood working operations. The consumption of wood for this process is 34.5 lbs. per hour. The woodworking process has vacuum collection unit. The efficiency of the control unit is 80%. This is an insignificant activity

COMMENTS:

Type of control and efficiency:

Emission point 01 has fabric filter to control particulate matter. The control efficiency of the filter

is 90 %. Emission point 06 to 10 has electrostatic precipitator to control particulate matter. The control efficiency of the ESP is 90 %. Emission point 11 has vacuum collection unit to control particulate matter. The control efficiency of the unit is 80 %

Emission factors and their source:

AP –42 5th edition, and mass balance are used for the emission factors for PM, VOC and HAPS. MDI "PTE" calculations are done according to the Alliance for the Polyurethane Industry's MDI Emission Estimator.

Applicable regulation:

State regulation 401 KAR 59:010, New process operations, applies to these emissions points because these are process operations that were commenced after July 2, 1975.

EMISSION AND OPERATING CAPS DESCRIPTION:

The actual emissions of HAPS for a single pollutant shall not exceed 9.0 tons per year. The combined emissions for HAPs shall not exceed 22.5 tons per year. The actual VOC emissions shall not exceed 90.0 tons per year. These annual limitations shall not be exceeded during any consecutive twelve months period for the entire source.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.